SHEET INDEX DESCRIPTION TITLE SHEET PLAN AND PROFILE OF WOODLOT ROAD FROM STA. 0+00 TO STA. 8+00 BUCKSAW COURT FROM STA. 0+00 TO STA. 2+59.57 PLAN AND PROFILE OF WOODLOT ROAD FROM STA. 8+00 TO STA. 17+02.20 STA. 5+50 TO STA. 10+60.59. PLAN AND PROFILE PLAN AND PROFILE OF WOODNOTE LANE FROM STA. 0+00 TO STA. 5+50 (SE) AND STA. 0+00 TO STA. 2+70.13 (NW). PLAN AND PROFILE OF HARVEST SCENE PLAN AND PROFILE OF WOODNOTE LANE FROM STA. 5+50 TO STA. 11+22.61 GRADING AND SEDIMENT CONTROL PLAN GRADING AND SEDIMENT CONTROL PLAN SEDIMENT CONTROL NOTES AND DETAILS STORM DRAIN PROFILES STORM DRAIN PROFILES AND DETAIL SHEET DRAINAGE AREA MAP 12 DETAILS

GENERAL NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOL. IV, i.e., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION,
- TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES AT LEAST FIVE (5) DAYS

BELL TELEPHONE SYSTEM 393-3649 LONG DISTANCE CABLE DIVISION 393-3553 or 3554 BALTIMORE GAS AND ELECTRIC CO. HOWARD COUNTY BUREAU OF UTILITIES 992-2366 HOWARD COUNTY CONSTRUCTION/ 792-7272 INSPECTION SURVEY DIVISION (24 HOURS NOTICE PRIOR TO COMMENCEMENT OF WORK)

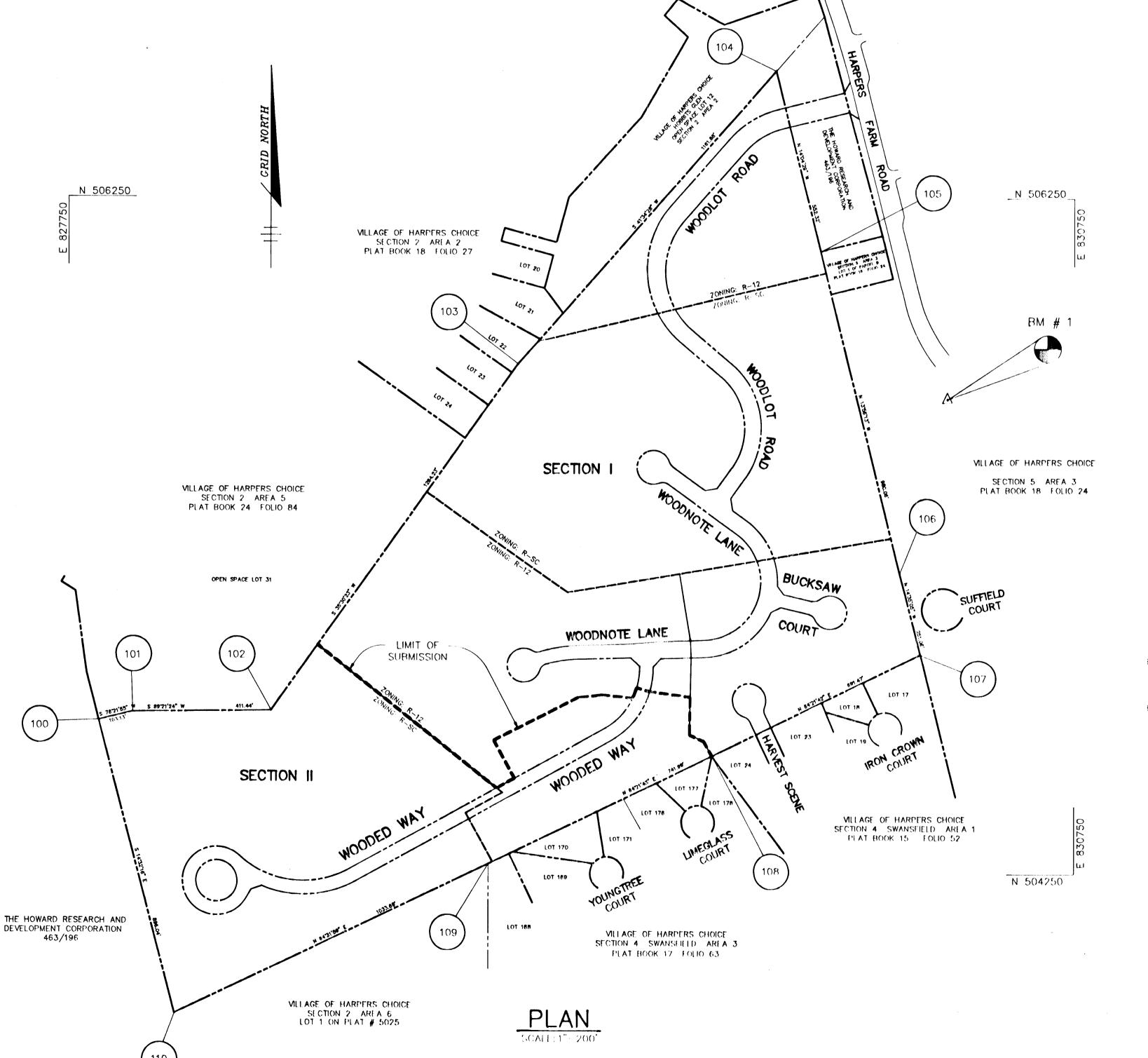
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- 6. ALL STREET CURB RETURNS SHALL HAVE 25' RADII UNLESS OTHERWISE NOTES.
- STORM DRAIN TRENCHES WITHIN ROAD RIGHT-OF-WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNT DESIGN MANUAL, VOLUME IV, i.e., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, 1989 AMENDMENTS.
- INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING, AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 1988 EDITION.
- . PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- 10. DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARDS:

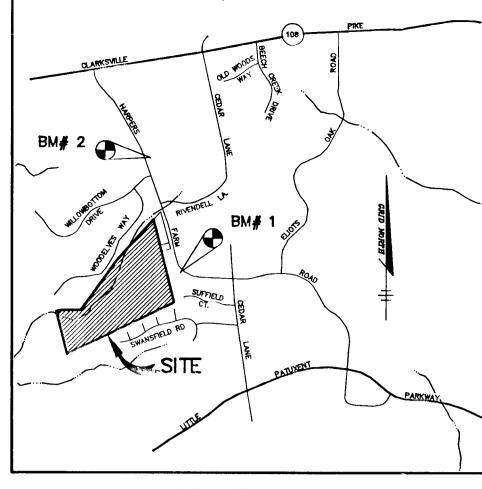
WOODLOT ROAD - STA. 0+00 TO STA. 6+79.72 - 60' R.O.W. 30 MPH WOODLOT ROAD - STA. 10+78.78 TO STA. 17+02.20 - 50' R.O.W. 30 MPH WOODNOTE LANE - STA. 0+00 TO STA. 2+16.93 - 50' R.O.W. 30 MPH WOODNOTE LANE - STA. 0+00 TO STA. 7+73.62 - 50' R.O.W. WOODNOTE LANE - STA. 7+73.62 TO STA. 11+22.61 - 40' R.O.W. 30 MPH BUCKSAW COURT - STA. 0+00 TO STA. 1+93.49 - 40' R.O.W. 30 MPH WOODED WAY - STA. 0+00 TO STA. 20+06.13 - 40' R.O.W.

- 11. ALL ELEVATIONS SHOWN ARE BASED ON U.S.C. AND G.S. MEAN SEAL LEVEL DATUM,
- 12. ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION.
- 13. ALL PIPE ELEVATIONS SHOWN ARE INVERT (CHEVATIONS.
- 14. PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN
- 15. SUBJECT PROPERTY ZONED R-12 AND R-SC PER ZB: 933M
- 16. TOPO TAKEN FROM AERIAL MAPS FLOWN IN JANUARY, 1992 BY WINGS AERIAL MAPPING, INC.
- 17. NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAS BEEN BROUGHT WITHIN 6"
- 18. ALL STORM DRAIN PIPE BEDDING SHALL BE CLASS "C" AS SHOWN IN FIG. 11.4, VOLUME 1 OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.
- 19. SEE OFFICE OF PLANNING AND ZONING FILE NO's. ZB: 933M, WP-93-66, 5P-93-13 ¢ PB: 278.
- 20. LIGHT POLES AND FIXTURES FOR STREET LIGHTS SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME III - ROAD AND BRIDGES, PAGE 4A-26.
- 21. THE STORMWATER MANAGEMENT FACILITIES PROPOSED FOR THIS SITE ARE CLASS "A" HAZARD FACILITIES IN THE EVENT OF A FAILURE OF THE EMBANKMENT DAMAGE WILL BE LIMITED TO FLOODPLAINS AND COUNTY ROADS.
- 22. THE PAVEMENT DETAILS SHOWN ON THESE PLANS REFLECT THE HOWARD COUNTY MINIMUM STANDARD PAVEMENT SECTIONS AND ARE NOT BASED ON SITE SPECIFIC CONDITIONS. PRIOR TO PAVING, THE THE FINAL PAVEMENT SECTIONS SHALL BE DETERMINED BY A QUALIFIED GEOTECHNICAL ENGINEER BASED ON IN-SITU TESTING OF THE FINISHED SUBGRADE. ANY PAVEMENT SECTIONS DETERMINED BY THE GEOTECHNICAL ENGINEER THAT IS LESS THAN THE HOWARD COUNTY MINIMUM STANDARD, SHALL FIRST BE APPROVED BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. THE TESTING AND GEOTECHNICAL ENGINEER SHALL BE FURNISHED BY THE OWNER.
- 23. STORMWATER MANAGEMENT FOR THIS DEVELOPMENT WILL BE AN EXTENDED DETENTION FACILITY CREATED BY ROAD FILLS.
- 24. THE 100-YEAR FLOODPLAIN STUDY HAS BEEN PREPARED BY RIEMER MUEGGE & ASSOCIATES, INC. AND APPROVED UNDER SP-93-13.
- 25. WETLANDS DELINEATION IS PROVIDED BY RIEMER MUEGGE & ASSOCIATES, INC.
- 26. WP-93-66 WAS A REQUEST TO WAIVE SECTION 16.113.C.10 TO PERMIT A CUL-DE-SAC LENGTH TO EXCEED 1200 FEET, SECTION 16.115.b.5 TO PERMIT LOTS TO DERIVE FRONTAGE ALONG A COMMONLY OWNED PRIVATE DRIVE IN EXCESS OF 200 FEET IN LENGTH AND SECTION 16.129.2 TO PERMIT THE OMISSION OF CERTAIN SIDEWALKS WITHIN THE SINGLE FAMILY ATTACHED SECTION, AND SECTION 16.120(b)(G)(1) TO PERMIT FIVE ADJACENT PIPESTEM LOTS. THIS WAIVER. PETITION WAS APPROVED ON MARCH 5, 1993.
- 27. WETLANDS PERMIT APPLICATION NO. 03-NT-0132

SECTION I ROADWAYS, STORM DRAINS AND STORMWATER MANAGEMENT

5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND





VICINITY MAP

BENCHMARKS

1 HOWARD CCUNTY MON.# 2739002 ELEV. 472.20

E 830372.788

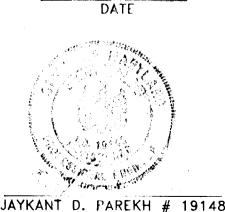
2 HOWARD COUNTY MON.# 2739003 ELEV. 465.10 N 507944.385 E 829697.643

COORDINATE LIST			
NO.	NORTHING	EASTING	
100	504700.852	827841.837	
101	504725.162	827942.057	
102	504729.782	828353.467	
103	505758.930	829087.728	
104	506628.124	829858.743	
105	506092,389	829993.059	
106	505141.179	830229.108	
107	504898.209	830292.327	
108	504599.020	829668.937	
109	504277.971	828999.996	
110	503833.500	828066.760	

AS BUIL	T CERTIFICATE
ARTHUR E. MUEGGE # 8707 APPROVED: HOWARD COUNTY DEP	DATE ARTMENT OF PLANNING AND ZONIN
CHIEF, DIVIGION OF LAND OF AND RESEARCH	DEVELOPMENT DATE
APPROVED: HOWARD COUNTY DEP CHIEF, LAND DE VELOPMENT DIV CHIEF, BUREAU OF HIGHWAY	//SION 10/20/93
DATE NO.	NG DATE REVISION
OWNER JOHN LEE CARROLL, ATTORNEY IN FACT 515 MADISON AVENUE 32nd FLOOR NEW YORK, N.Y. 10022	DEVELOPER WOODLOT ENTERPRISES, INC c/o THOMAS SCRIVENER 5026 DORSEY HALL DRIVE SUITE 204 COLUMBIA, MD. 21042
	DLOT TION I
	PARCEL 365 ON DISTRICT TY, MARYLAND
TITLE TITLE	SHEET

HILE SHEET

Planners • Surveyors • Engineers 8818 Centre Park Drive • Suite 200 • Columbia, Md 21045 410-997-8900 FAX: 410-997-9282

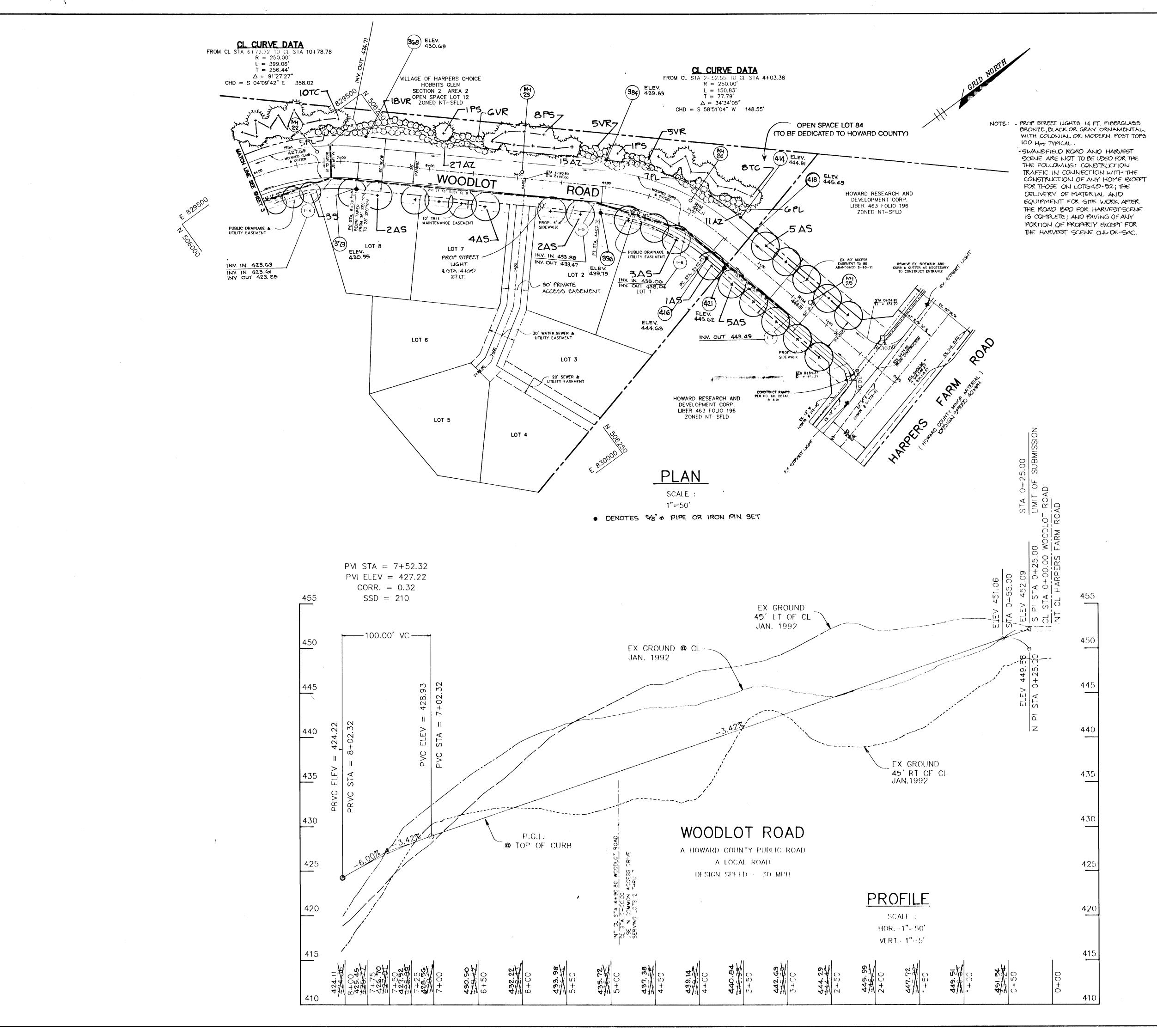


DESIGNED BY : JTD DRAWN BY : DBS PROJECT NO : 83017 DATE: OCTOBER 4,1003 SCALE: AS SHOWN

DRAWING NO. 1 OF 12

ZB:933M SP-93-13

WP-93-66 PB:278

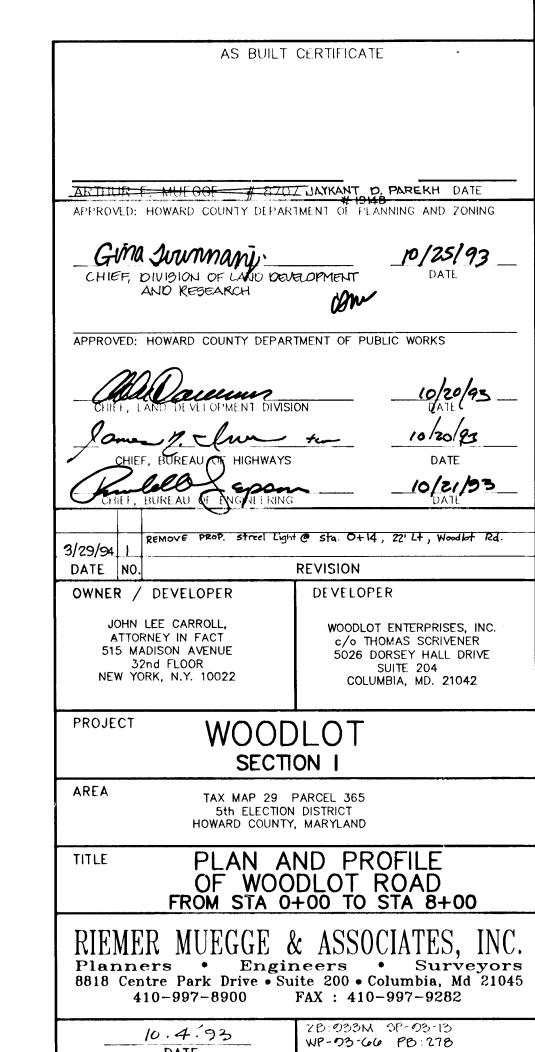


PLANT LIST

(INCLUDES ALL SHEETS)

The state of the s

QTY	KEY	BOTANICAL NAME Common Name	SIZE	REMARKS
16	AR	ACER RUBRUM 'OCTOBER GLORY' October Glory Red Maple	2 1/2" - 3" Cal. 12' - 14' Ht.	Full Crown B & B
37	AS	ACER SACCHARUM 'GREEN MOUNTAIN' Green Mountain Sugar Maple	2 1/2" - 3" Cal. 12' - 14' Ht.	Full Crown B & B
53	AZ	AZALEA 'DELAWARE VALLEY WHITE' Delaware Valley White Azalea	24" - 30" Ht.	B & B
17	MF	MALUS FLORIBUNDA 'HARVEST GOLD' Harvest Gold Crabapple	1 1/2" - 2" Cal. 10' - 12' Ht.	B & B
18	PL	PRUNUS LAUROCERASIS 'SCHIPKAENSIS' Skip Cherry Laurel	30" - 36" Ht.	B & B
10	PS	PINUS STROBUS White Pine	4' - 5' Ht.	Unsheared B & B
29	РҮ	PRUNUS YEDOENSIS Yoshino Cherry	1 1/2" - 2" Cal. 10' - 12' Ht.	B & B
30	QR	QUERCUS RUBRA Red Oak	2 1/2" - 3" Cal. 12' - 14' Ht.	B & B
19	s		1 1/2" - 2" Cal. 10' - 12' Ht.	B & B
20	TC		4' - 5' Ht.	Unsheared B & B
34	. VR	THE PROPERTY OF THE PROPERTY O	4' Ht.	в & В
20	zs		2 1/2" - 3" Cal. 12' - 14' Ht.	в & В



JAYKANT D. PAREKH #19148

DATE

DESIGNED BY : JTD

DRAWN BY: JTD

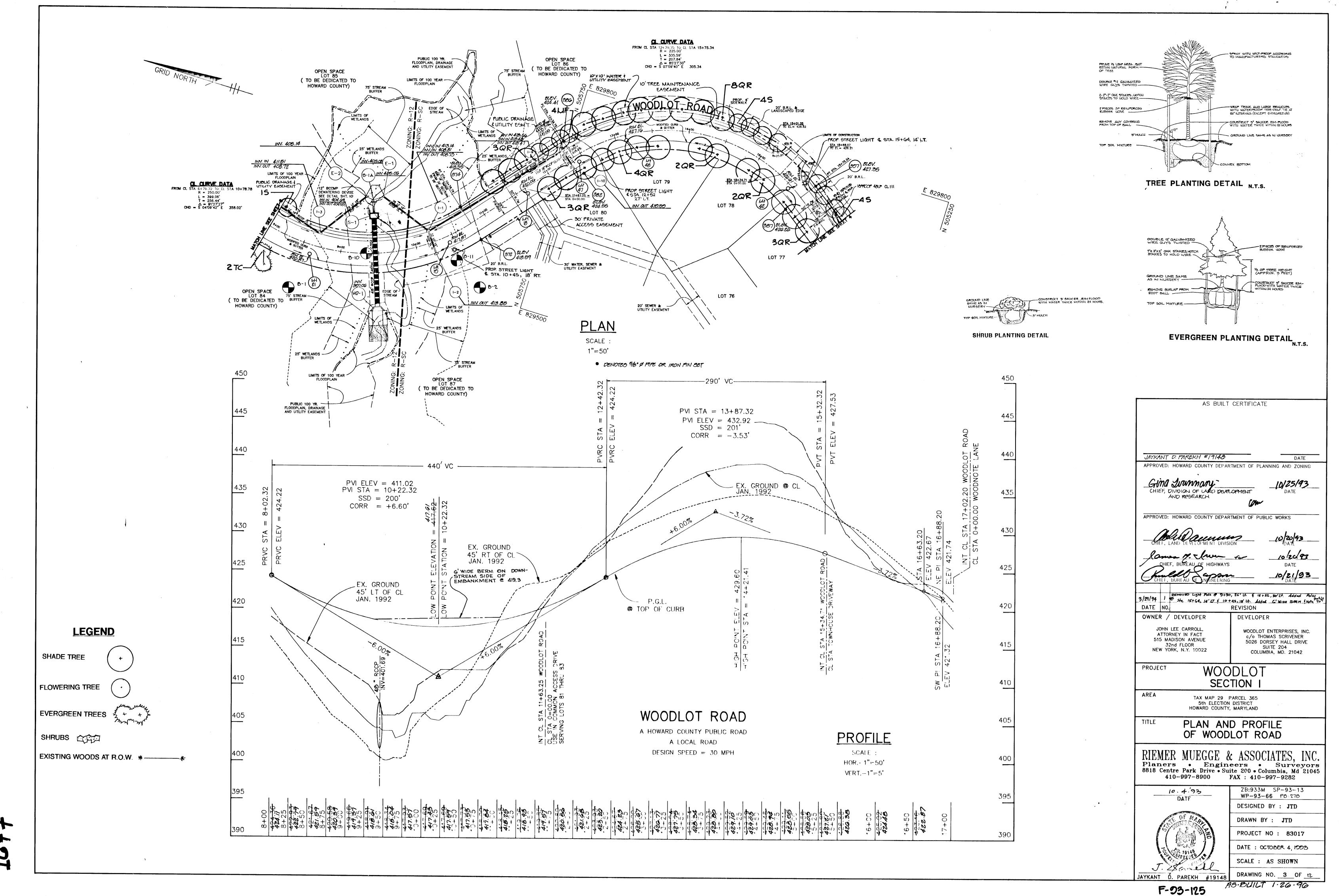
PROJECT NO: 83017

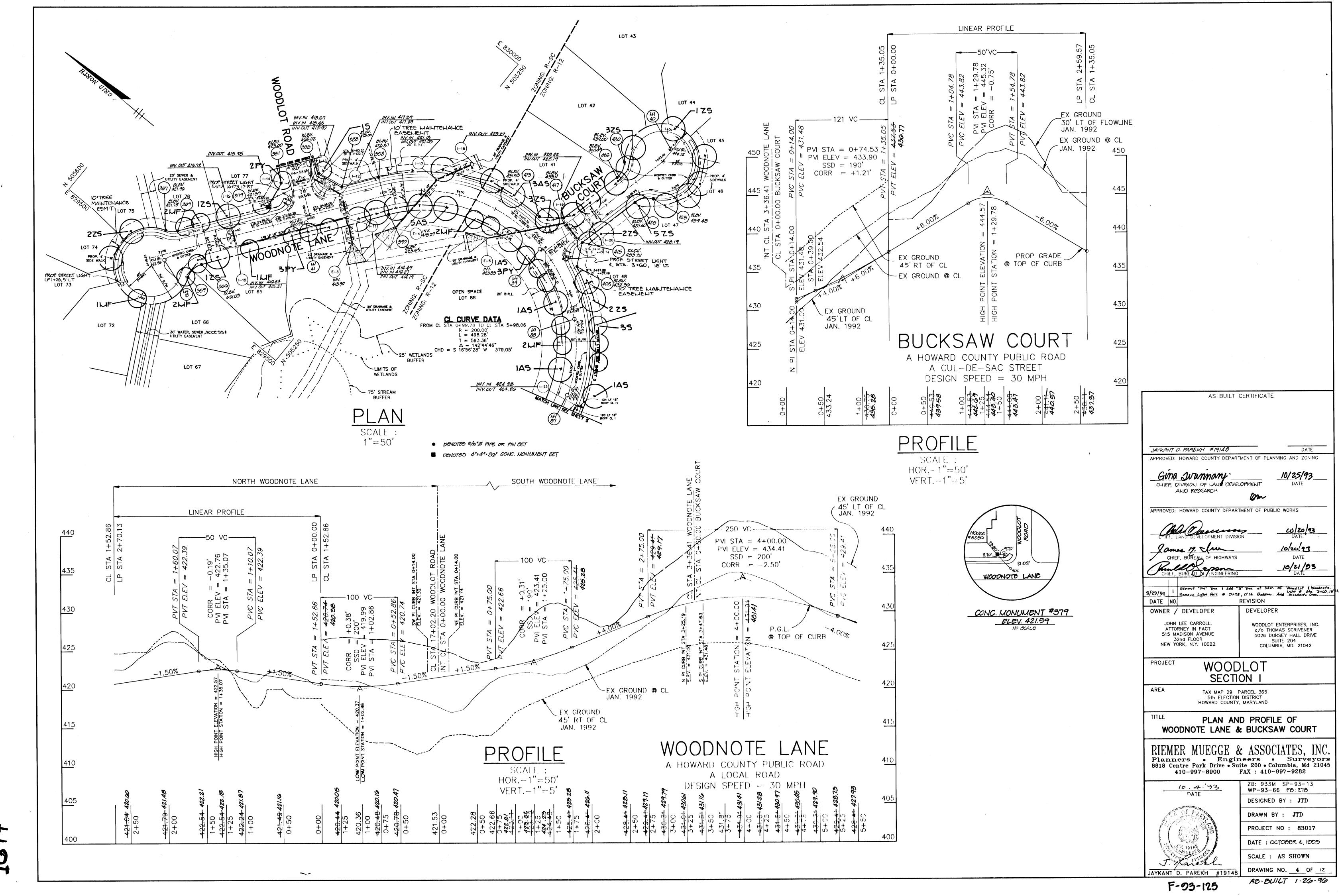
SCALE: AS SHOWN

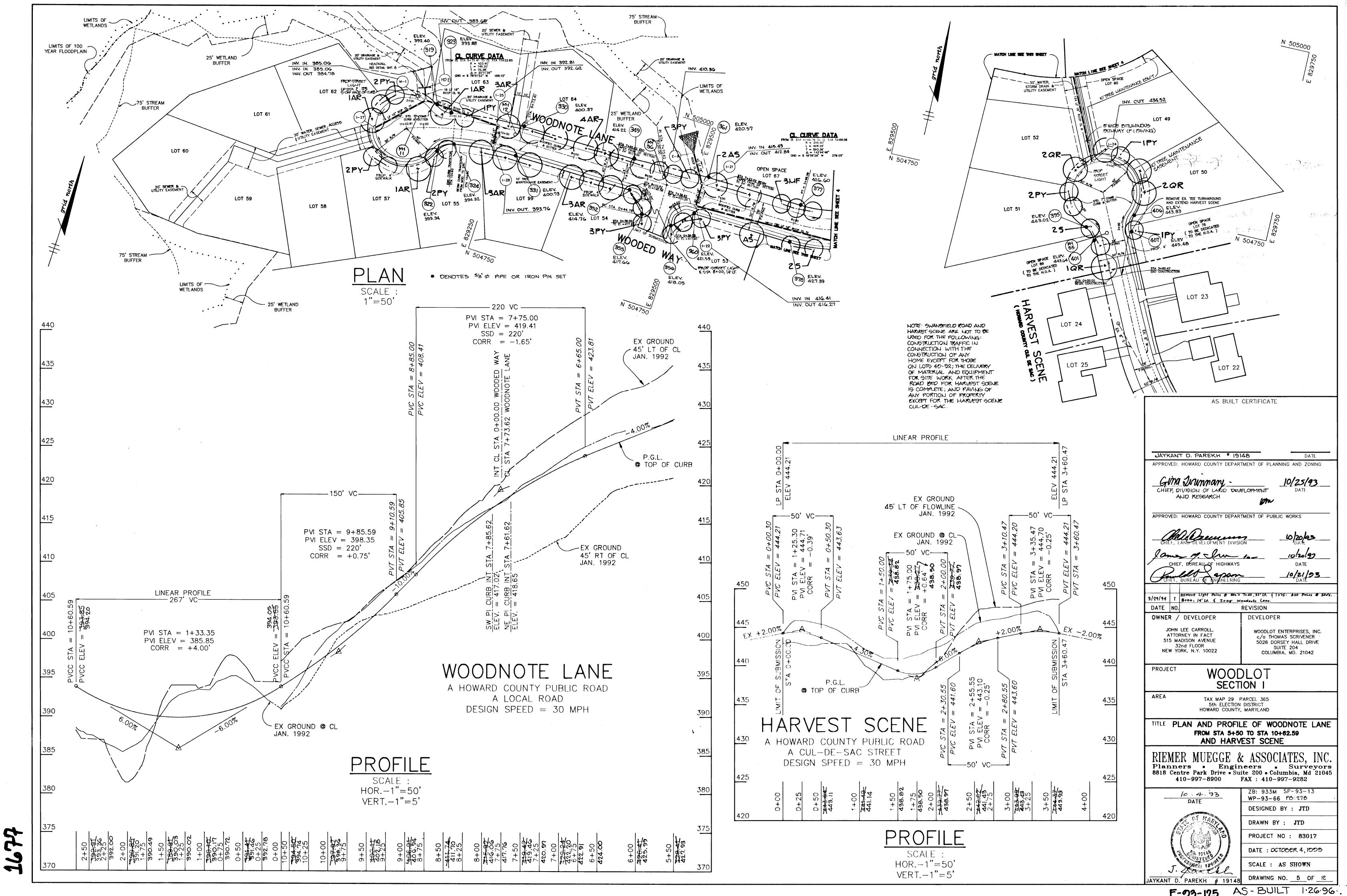
DATE: OCTOBER 4, 1993

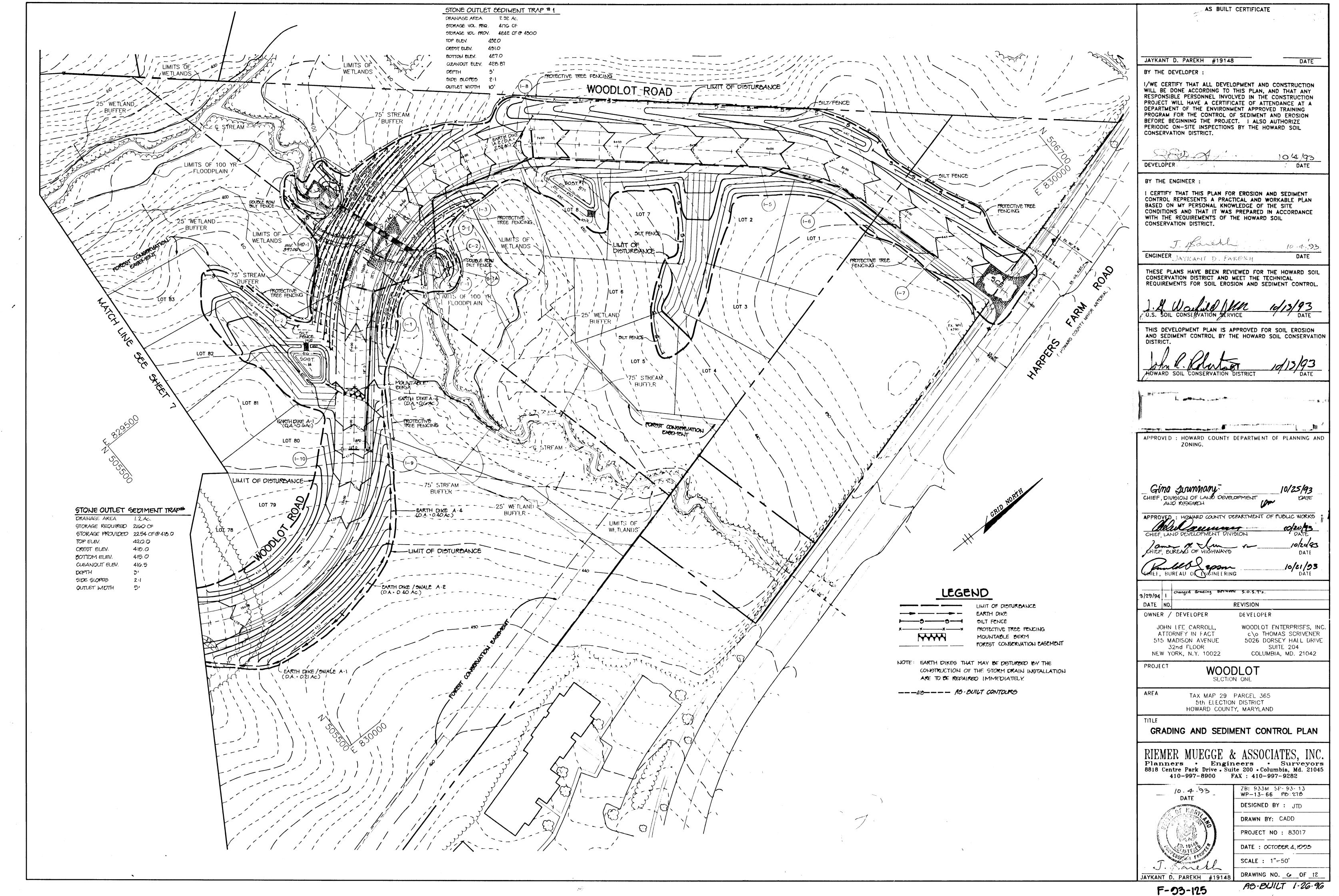
DRAWING NO. 2 OF 12

A5-BUILT 1.26.96









JAYKANT D. PAREKH #19148

To stabilize the soil; reduce damage from sediment and runoff to downstream

Conditions Where Practice Applies On exposed soils where a quick vegetative cover is desired; on sites which can be maintained with ground equipment (2:1 or flatter slopes

areas; enhance natural beauty.

- SPECIFICATIONS Class of turf grass sod shall be Maryland or Virginia State Certified, or Maryland or Virginia State approved sod.
- Sod shall be machine cut at a uniform soil thickness of 3/4 inch, plus or minus 1/4 inch, at the time of cutting. Measurement for thickness shall
- Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suspended vertically with a
- Individual pieces of sod shall be cut to the suppliers width and length. Maximum allowable deviation from standard widths and lengths shall be 5
- Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival
- Sod shall be harvested, delivered and installed within a period of 36 hours. Sod not transplanted within this period shall be inspected and approved prior to its installation.
- Fertilizer and time application rates shall be determined by soil tests provided by the controctor. Under unusual circumstances where there is insufficient time for a complete soil test, fertilizer and lime materials may be applied in amounts shown under B, below.
- A. Prior to sodding, the surface shall be cleared of all trash, debris and of all roots, brush, wire, grade stakes and other objects that would interfere with planting, fertilizing or maintenance operations. B. Where the soil is acid or composed of heavy clays, ground limestone
- shall be spread at the rate of 2 tons/acre or 100 pounds per 1,000 square feet. In all soils 1,000 pounds per acre or 25 pounds per 1,000 square feet of 10-10-10 fertilizer or equivalent shall be uniformly applied and mixed into the top 3 inches of soil with the
- C. All areas receiving sod shall be uniformly fine graded. Hard-packed earth shall be scorefied prior to placement of sod.
- A. During periods of excessively high temperature the soil shall be lightly irrigated immediately prior to loying the sod.
- B. The first row of sod shall be laid in a straight line with subsequent rows placed parallel to and tightly wedged against each other. Lateral joints shall be staggered to promote more uniform growth and strength. Insure that sad is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots.
- C. On sloping areas where erosion may be a problem, sod shall be laid with the long edges parallel to the contour and with staggered joints Secure the sod by tamping and pegging or other approved methods
- D. As sodding is completed in any one section, the entire area shall be rolled or tamped to insure solid contact of roots with the soil surface. Sod shall be watered immediately after rolling or tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. The operations of laying, tamping and irrigating for any piece of sod shall be completed within eight hours.

III. Sod Maintenanc

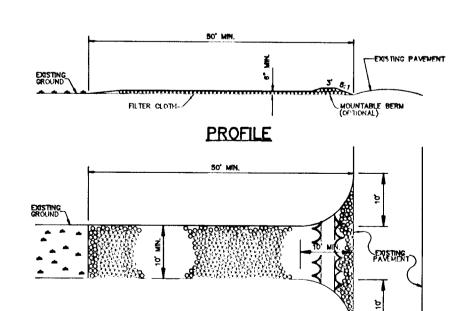
- A. In the absence of adequate rainfall, watering shall be performed dally or as often as necessary during the first week and in sufficient should be done during the heat of the day to prevent wilting
- B. After the first week, sod shall be watered as necessary to maintain adequate moisture and insure establishment, and as directed by the

*Equivalent amounts of fertilizer may be applied with other formulations

- C. First mowing should not be attempted until sod is firmly rooted. No more than 1/3 of the grass leaf shall be removed by the initial
- cutting or subsequent cuttings. Gross height shall be maintained between 2 and 3 inches unless otherwise specified. D. Maintenance of established sod should follow specifications outlined

Annual Maintenance Fertilization for Permanent Sad Use Soil Test Recommendations or Rates Shown Below

		Readily Available	Nitrogen		
Seeding Mixtures	Formulation*	Lbs/Ac/Yr.	Lbs./1000 S.F.	Time	Mowing
'Ky—31' tall fescue Kentucky Bluegross Red Fescue	20-10-10	220	5	Sept. 1 Oct. 1 Mar. 1	Mow no closer than 2 inches for bluegrass and 3 inches for fescue.
Bermudagrass Zoysla	10-10-10	440	10	May 1 July 1 Aug. 1	Mow no closer than 1—2 inches
		Slowly Availab	ele Nitrogen		
Seeding Mixtures	Formulation*	Lbs/Ac/Yr.	Lbs./1000 S.F.	Time	Mowing
Kentucky Bluegrass Red Fescue	20-10-10	440	10	Sept. 1 Mor. 1	



<u>PLAN VIEW</u>

CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 2° STONE OR RECIAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH — AS REQUIRED, BUT NOT LESS THAN 50 FEFT (EXCEPT ON A SINGLE RESIDENCE LOT WITER A 30 FOOT MINIMUM WOULD APPLY).
3. THICKNESS — NOT LESS THAN SIX (6) INCHES.
4. WIDTH — TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS AND EGRESS OCCURS.
5. FILTER CLOTH — WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER CLOTH WILL NOT BE REQUIRED ON A SINGLE RESIDENCE LOT.
6. SURFACE WATER — ALL SUBFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCE SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE — THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS—OF—WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEWAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS—OF—WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING — WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS—OF—WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING — WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS—OF—WAY MUST BE REMOVED IMMEDIATELY.

8. WASHING — WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS OF—WAY WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILLIZED WITH STONE AND WHICH DRAINS INTO AN APROVED SEDIMENT TRAPPING DEVICE.

PRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER

STABILIZED CONSTRUCTION ENTRANCE

CROSS SECTION A-A OPTION: A ONE FOOT LAYER OF 2" STONE MAY BE PLACED ON THE UPSTREAM SIDE OF THE RIPRAP IN PLACE OF THE EMBEDDED FILTER OLOTH. CONSTRUCTION SPECIFICATIONS

EXCAVATE FOR REQUIRED STORAGE

- AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBEU AND STRIPPED OF ANY MEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED. 2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS AND OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BOING CONSTRUCTED.
- 3. ALL OUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
- 4. THE STONE USED IN THE OUTLET SHALL BE SMALL RIPRAP 4"-8" ALONG WITH A 1' THICKNESS OF 2" ACCREGATE PLACED ON THE UP-GRADE SIDE ON THE SMALL RIPRAP OR EMERIPHER CLOTH IN THE RIPRAP.
- SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. 6. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS
- CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAN EROSION AND WATER POLLUTION IS MINIMIZED. THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAMAGE AREA HAS BEEN PROPERLY STABILIZED.

STONE OUTLET SEDIMENT TRAP

Moterials and Amounts:

MULCHING

1) Straw — Straw shall be unrotted small grain applied at the rate of t 1/2 to 2 tans pre acre (70 to 90 LBS/1000 SF). Mulch materials shall be relatively free of all kinds of weeds and shall be free of prohibited noxious weeds such as: thisties, Johnsongrass and

Spread uniformly by hand or mechanically. For uniform distribution of hand spread mulch, divide area into approximately 1000 SF sections and place 70 to 90 LBS (two bales) of mulch in each

- Aspholt emulsion or cutback aspholt at 600 to 1200 GALS per acre (15 to 30 GALS/1000 SF). This is suitable for a limited period of time where travel by people, animals or machines is not a problem.
- 3) Synthetic soil stabilizers may be used according to manufacturer's recommendations, under sultable conditions
- 4) Mulch mattings such as jute or excelsior blanket shall be stepled to the surface in waterways and on steep slopes. Lighter materials of paper, plastic and cotton mulch mattings may be used where erosion hazard is not sever. If area is to be mowed, do not use metal
- 5) Wood chips at the rate of approximately 6 tones per acre (275 LBS/1000 SF) may be used when available and when feasible to use. 6) Crushed rock, stones, gravel or shale blankets. Apply at rate of 20 to 100 tons per acre (900 to 4500 LBS/1000 SF) with coarsest

material applied at the highest rate. Mulch Anchoring

Mulch anchoring shall be accomplished immediately after mulch placement to minimize loss by wind or water. This may be done by one of the following methods, (listed by preference) depending upon size of area, erosion hazard and cost. On sloping land, practice No. 1 below, should be done on the contour wherever possible, except "tracking" should be done up and down the slope with 1 1/2 inch cleat marks running across the slope.

- 1) Mulch Anchoring Tool and Tracking. A mulch anchoring tool is a tractor drown implement designed to purch and anchor mulch into the surface two (2) inches of soil. This practice affords maximum erosion control but is limited to flatter slopes where equipment can operate sofely — primarily used on flotter than 3:1 cut and fill slopes to cut the mulch into the soil. "Tracking" is used primarily on slopes steeper than 3:1 cut and fill slopes to cut the mulch into
- 2) Mulch Nettings. Stople lightweight biodegradoble paper, plastic or cotton netting over the mulch according to manufacturer's
- 3) Liquid Mulch Binders. Applications of liquid binder should be heavier at edges where wind catches mulch, in valleys and at crests of banks. The remainder of the area should be uniform in appearance. Caution should be used with asphalt in residential and
- Cutback asphalt rapid curing (RC-70, RC-250 and RC-800) or medium curing (MC-250 or MC-800). Apply at the rate of 200 gollons per acre (5 GAL/1000 SF) on flat areas an don slopes ess than 8 feet high. On slopes 8 feet or more high, apply at the rate of 348 gallons per acre (8 GALS/1000 SF).
- b. Emulsified asphalt (SS-1, CSS-1, SMS-2, MS-2, RS-1, RS-2, CRS-1, and CRS-2). Apply at the rate of 200 gallons per acre (5 GAL/1000 SF) on flat areas and on slopes less than 8 feet high On slopes 8 feet or more high, apply at the rate of 348 gallons per ocre (8 GALS/1000 SF).
- All asphalt designations are from the Asphalt Institute c. Synthetic binders such as Acrylic DLR (AGri—Tac), DCA—70, or pipe.
- Petroset or Terra Tac may be used at rates recommended by the 4) Wood Cellulose Fiber Binder. The fiber binder shall be applied at a net dry weight of 750 LBS per acre. The wood cellulose fiber shall
- be mixed with water, and the mixture shall contain a maximum of 50 LBS of wood cellulose fiber per 100 gallons. 5) Peg and Twine. Drive 8 to 10 inch wooden pegs to within 2 to 3 Inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil

surface by stretching twine between pegs in a crise-cross within a

square pattern. Secure twine around each peg with two or more round

DURING CONSTRUCTION.

INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE, EARTH DIKES, TEMPORARY CHANNEL DIVERSION, TEMPORARY ACCESS CULVERT, STONE OUTLET TRAPS #1 AND #2 AND TREE PROTECTIVE FENCE AS SHOWN ON THE GRADING PLANS.

INSTALL I-18 TO E-4 AND I-12 TO I-11 WITH 18-INCH TEMPORARY PIPE.

6. UPON COMPLETION OF CULVERT DIVERT STREAM CHANNEL INTO S-1.

7. BEGIN GRADING FOR ROADWAY CONSTRUCTION. REMOVE TEMPORARY ACCESS CULVERT AS

- INSTALL UTILITIES AS SUBGRADE IS ESTABLISHED.
- INSTALL CURB AND GUTTER AND BEGIN PAVING.
- 10. COMPLETE GRADING AND PAVING AND STABILIZE AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES.
- 11. INSTALL STREET TREES AND STREET LIGHTS.
- 13. UPON APPROVAL OF DEPARTMENT OF LICENSES, INSPECTIONS AND PERMITS, REMOVE ALL SEDIMENT CONTROL DEVICES.

15. STABILIZE ALL REMAINING DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT

IMMEDIATELY. E. ANY CONSTRUCTION WITHIN THE WETLANDS AND WETLANDS

- BUFFER CANNOT BEGIN UNTIL THE WETLANDS PERMIT IS OBTAINED THIS WORK INCLUDES BUT NOT LIMITED TO THE TEMPORARY CHANNEL DIVERSION, TEMPORARY ACCESS CULVERT AND CONSTRUCTION OF 5-1 TO HD-1.
- 3. FOR UNIT OF DISTURBANCE FOR THE SEWER PLEASE REFER TO CONTRACT NO. 54.3279.D.
- BE INSTALLED AS THE EMBANKMENT FILL OPERATION PROGRESSES.
- WITHIN THE EMBANKMENT.

--- WOVEN WIRF FENCE (MIN. 14 1/Z GALIGE, MAX. 6" MESH SPACING) PERSPECTIVE MEW ---- UNDISTURBED GROUND

CONSTRUCTION SPECIFICATIONS

- 1. ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT 2. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
- 3. TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
- 4. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE

FLOW CHANNEL STABILIZATION				
TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B	
1	0.5-3.0%	SEED & STRAW MULCH	SEED & STRAW MULCH	
2	3.1-5.0%	SEED & STRAW MULCH	SEED USING JUTE, OR EXCELSIOR; SOD; 2" STONE	
3	5.1-8.0%	SEED WITH JUTE, OR SOD; 2" STONE	LINED RIPRAP 4-8"	

- A STONE TO BE 2 INCH STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3 INCHES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH

<u>EARTH DIKE</u>

SEQUENCE OF CONSTRUCTION

OBTAIN A GRADING PERMIT AND ALL OTHER NECESSARY PERMITS. CONTRACTOR TO FOLLOW THE CONDITIONS AND PRACTICES FOR WORKING IN NON-TIDAL WETLANDS

- 5 CONSTRUCTION 48-INCH CULVERT CROSSING S-1 TO HO-1

- NECESSARY
- 12. COMPLETE ALL CONSTRUCTION ACTIVITIES

- 4. ALL UTILITY LINES WITHIN THE EMBANKMENT ARE TO
- 5. GRAVEL BASE IS NOT PERMITED UNDER ANY UTILITY

PROTECTIVE TREE FENCING

ELEVATION_DETAIL

- 5. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUNOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER THE DIKE CHANNET. OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
- STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER THE CHART BELOW:

8.1-20% LINED RIPRAP 4-8" ENGINEERED DESIGN

- B. MIPRAP TO BE 4-8 INCHES IN A LAYER AT LEAST 8 INCHES THICKNESS AND PRESSED INTO THE SOIL
- C. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS. 7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

4. CLEAR TREES FOR ROADWAY CONSTRUCTION.

A. FLUSH STORM DRAIN SYSTEMS OF SEDIMENT B. INSTALL STONE AROUND 12-INCH CMP AT S-1.

NOTE: LEARTH DIKES THAT MAY BE DISTURBED BY THE CONSTRUCTION OF THE STORM DRAIN INSTALLATION ARE TO BE REPAIRED

- G. WHEN THE TEMPORARY ACCESS CULVERT IS REMOVED, 3. THE COMPACTION IS TO BE IN ACCORDANCE WITH THE POND SPEC'S.

16" 10" -3'-2"----DETAIL OF HEADWALL HD-2 NOT TO SCALE

SECTION

WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES AND STAPLE. FILTER CLOTH TO BE FASTENED TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP

SILT FENCE DETAIL

* REF. HO. CO. STD DETAIL SD-5.21 FOR

BAR SPACING, DIMENSIONS USED IN THIS

DETAIL DUE TO THE HEIGHT REQUIREMENTS

NO SCALE

AND MID SECTION,

3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY

SIX INCHES (6") AND FOLDED.

MAINTENANCE SHALL BE PERFORMED AS NEFDED AND MATERIAL REMOVED WHEN "BULDES".

DEVELOP: IN THE SILT FENCE.

CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

FOREST CONSERVATION NOTES CONSTRUCTION PERIOD PROTECTION PROGRAM

- The edge of woods to be protected will be marked in the field per the approved site development plan prior to the start of construction activity.
- Construction activities restricted within the tree preservation areas as expressed by the limit of disturbance lines:
- Placing of backfill in Forest Retention Areas;
- Felling of trees into Forest Retention Areas:
- Driving or storing construction equipment in of through Forest Retention
- Burning in or in close proximity to Forest Retention Areas;
- Stacking or storing supplies in Forest Retention Areas; - Conducting trenching operations in Forest Protection Areas:
- Grading beyond the limit of disturbance. Treatment of the Forest Retention edge to protect against windthrow will be
- . Selective pruning.
- Selective thinning. 3. Removal of species susceptible to windthrow
- All Retention Areas and isolated specimen trees shall be protected by highly visible, well anchored temporary protection devices All Retention Areas shall be protected from smothering, flooding, excessive
- Signs are to be placed at intervals sufficient to delineate Retention Areas. Attachment of signs, or any other objects to the trees is prohibited.

water, spillage and any solution containing materials hazardous to tree

are in place.

- POST-CONSTRUCTION PROTECTION PROGRAM All protective devices shall remain in place until all construction has
- All temporary forest protection structures will be removed after Any changes or post-construction management necessary shall be made in
- consultation with a qualified professional 4. At the end of the post-construction management and protection period, these designated responsible professional shall convey to the administrator of the Howard County Forest Conservation Program certification that all Forest Conservation Areas have remained intact or have been restored to the appropriate condition, that the stipulated survival rates have been

achieved, and that any permanent protection measures required by the plan

IREE PRESERVATION PROCEDURES

- 2. PROTECTIVE FENCING SHALL BE INSTALLED AT THE DRIP LINE OF THE EDGE OF WOODS. ALL AREAS WITHIN PROTECTIVE FENCES ARE TO BE CONSIDERED OFF LIMITS FOR ANY CONSTRUCTION ACTIVITITY.
- 3. PROTECTIVE FENCING WILL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR WILL AFFIX SIGNS TO THE FENCING INDICATING THAT THESE AREAS ARE TREE PRESERVATION AREAS. THE GENERAL CONTRACTOR SHALL TAKE UTMOST CARE TO PROTECT THEE ROOT SYSTEMS DURING THE CONSTRUCTION CYCLE. TREE ROOT SYSTEMS SHALL BE PROTECTED FROM SMOTHERING, FLOODING, EXCESSIVE WETTING FROM DE-WATERING OPERATIONS, OFF-SITE RUN OFF, SPILLAGE, AND DRAINAGE OF SOLUTIONS CONTAINING MATERIALS HAZARDOUS TO TREE ROOTS. REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION AREA SHALL BE PROHIBITED. THE GENERAL CONTRACTOR SHALL BE PROHIBITED FROM PARKING ANY CONSTRUCTION EQUIPMENT, OR FROM STORING ANY BUILDING SUPPLIES OR EARTH STOCKPILES WITHIN THE TREE PRESERVATION AREAS.
- FOOT TRAFFIC, AS WELL AS VEHICULAR TRAFFIC, IN THE TREE PRESERVATION AREAS SHALL BE REPT TO A MINIMUM. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TREE DAMAGED OR DESTROYED WITHIN THE TREE PRESERVATION AREAS, WHETHER CAUSED BY THE CONTRACTOR, HIS AGENTS, EMPLOYEES, SUB-CONTRACTORS, OR LICENSES. . CONSTRUCTION ACTIVITIES EXPRESSLY MEATRICTED WITHIN THE TREE PRESERVATION AREAS: PLACING BACKFILL IN PROJECTED AREAS, FELLING TREES INTO PROJECTED AREAS, DRIVING CONSTRUCTION EQUIPMENT INTO OR THROUGH PROTECTED AREAS, BURNING IN OR IN CLOSE PROXIMITY TO PROJECTED AREAS, STACKING OR STORING SIMPLIES IN PROTECTED AREAS, STACKING OR STORING
- AREAS, GRADING BEYOND THE LIMITS OF DISTURBANCE . THE GENERAL CONTRACTOR SHALL PROVIDE A WASH OUT AREA FOR CONCRETE TRUCKS ON SITE, WHICH WILL NOT DRAIN TOWARDS A PROTECTED AREA. 8. ALL TREES WHICH ARE NOT TO BE PRESERVED WITHIN FIFTY FEET OF ANY TREE PRESERVATION AREAS ARE TO BE REMOVED IN A MANNER THAT WILL NOT DAMAGE THOSE TREES THAT ARE DESIGNATED FOR PRESERVATION. IT IS HIGHLY RECOMMENDED THAT TREE STUMPS WITHIN THIS FIFTY FOOT AREA BE GROUND OUT WITH A STUMP GRINDING MACHINE TO MINIMIZE DAMAGE.

POND SPECIFICATIONS

SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM and AASHTO specifications

apply to the most recent version SITE PREPARATION

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsall. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp break shall be sloped to no steeper than 1:1. Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a sultable location for use on the embankment and other designated greas

ground surface. For dry stormwater management ponds, a minimum of a 50 foo

radius around the inlet structure shall be cleared.

Material — The fill material shall be taken from approved designated borrow oreos. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable material. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification G

embankment if design and construction are supervised by a geotechnical engineer. Placement - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill moterials shall be placed in maximum 8- inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment. Compaction - The movement of the hauling and spreading equipment over the fill

SC, CH, or CL. Consideration may be given to the use of other materials in the

shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot rubber tire of vibratory roller. Fill moterial shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill rnaterial shall contain sufficient moisture so that if formed into a ball it will not crumble vet not be so wet that water can be squeezed out Where a minimum required density is specified, it shall not be less than 95% of

layer of fill shall be compocted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99. Cutoff Trench - The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for

excavation, with the minimum width being four feet. The depth shall be at least

four feet below existing grade or as shown on the plans. The side slopes of the

maximum dry density with a moisture content within $\pm -2\%$ of the optimum. Each

The back fill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no dircumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure

- PIPE CONDUITS All pipes shall be circular in cross section.
- Corrugated Metal Pipe All of the following criteria shall apply for corrugated
- Materials (Steel Pipe) This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M—190 Type A with watertight coupling bands. Any bituminous cooting damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 Inch (10 mil) on both sides of the pipe. The following coatings or an approved equal may be used: Nexon, Plasti-Cote, Bloc-Klad, and Beth-Cu-Lay. Cooted corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246.
- 2. Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.
- 3. Connections All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Anti-seep collars shall be connected to the pipe in such a monner as to be completely watertight. Dimple bands are not considered to be watertight. All connections shall use a rubber or neoprene gasket when inline nine

corrugations to accommodate the band width. The following type connections

the pine, a 12" wide standard lap type band with 12" wide by 3/8" thick

closed cell circular neoprene gasket; and a 12" wide hugger type band with

- 0-ring gaskets having a minimum diameter of 1/2" greater than the gation depth. Pipes 48" in diameter and larger shall be connected by a 24" long annular corrugated bond using rods and lugs. A 12" wide by 3/8' thick closed cell circular neoprene gasket will be installed on the end of each pipe for a total of 24". Helicolly corrugated pipe shall have either inuously welded seams or have lock seam 4. Bedding — The pipe shall be firmly and uniformly bedded throughout its
- encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support. 5. Backfilling shall conform to "Structure Backfill."

6. Other details (anti-seep collars, valves, etc.) shall be as shown on the

entire length. Where rock or soft, spongy or other unstable soll is

Reinforced Concrete Pipe - All of the following criteria shall apply for reinforced concrete pipe: Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C- 361. An approved equivalent is AWWA Specification C-302.

2. Bedding — All reinforced concrete pipe condults shall be laid in a concrete

bedding for their entire length. This bedding shall consist of high slump

concrete placed under the pipe and up the side of the pipe at least 10% of its outside diameter with a minimum thickness of 3 inches, or as shown on 3. Laying pipe — Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire

ine, the bedding shall be placed so that all spaces under the pipe are

filled. Care shall be exercised to prevent any deviation from the original ine and grade of the pipe. The first joint must be located within 2 feet

4. Backfilling shall conform to Structure Backfill.

earth compacted to provide adequate support.

polyvinyl chloride (PVC) pipe:

Materials, Section 608, Mix No. 3.

The rook shall have the following properties:

or ASTM D- 2241

- 5. Other details (anti-seep collars, valves, etc.) shall be as shown on the Polyxfmyl Chloride (PVC) Pipe - All of the following criteria shall apply for
- 2. Joints and connections to anti-seep collars shall be completely watertight. 3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable

Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785

4. Backfilling shall conform to Structure "Backfill" 5. Other details (anti-seep collars, valves, etc.) shall be as shown on the

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and

All rock shall be dense, sound, and free from cracks, seams, and other defects conductive to accelerated weathering. The rock fragments shall be angular to subrounded in shape. The least dimension of an individual rock fragment shall

be not less than one-third the greatest dimension of the fragment.

- 1. Bulk specific growty (soturated surface—dry basis) not less than 2.5. 2. Absorption not more than three percent.
- 3. Soundness: Weight loss in five cycles not more than 20 percent when sodium Bulk specific gravity and absorption shall be determined according to ASTM (

The test for soundness shall be performed according to ASTM C 88.

The riprop shall be placed to the required thickness in one operation. The roc

shall be delivered and placed in a manner that will insure the riprop in place

shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the emailer racks filling the voids between the larger rooks. Filter cloth shall be placed under all riprop and shall meet the regularments of Maryland Department of Transportation, State lighway Administration Standard Specifications for Construction and Materials

SEDIMENT CONTROL NOTES

- 1. A minimum of 46 hours notice must be given to the Howard County DEPT. of inspections and Permits prior to the start of any construction (313 1855)
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1991 MARYLAND STANDARDS AND SPECIFICATIONS
- FOR SOIL AND EROSION CONTROL 3. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 colendar
- days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to other disturbed or graded areas on the project site. 4. All sediment traps/basins shown must be fenced and warning sign:

(Sec. 51), sod (Sec. 54), temporary seeding (Sec. 50) and

- posted around the perimeter in accordance with Vol. 1, Chapter 12 of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage. 5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND PECIFICATIONS FOR SOIL AND EROSION CONTROL for permonent seedings
- mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses All sediment control structures are to remain in place and are to be mointained in operative condition until permission for their

removal has been obtained from the Howard County Sediment Control

- Total Area of Site 44.41 acres 11.04 acres 3.15 acres Area Disturbed Area to be roofed or pove Area to be vegetatively stabilized
- 15.3904 cu. yds. 8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same
- 9. Additional sediment controls must be provided, if deemed necessary by the Howard County Department of Public Works Sediment Control

10. Site grading will begin only after all perimeter sediment control

7. Site Analysis

measures have been installed and are in a functioning condition. 11. Sediment will be removed from traps when its depth reaches clear 12. Cut and fill quantities provided under site analysis do not

they reflect consideration of undercutting or removal of

with site conditions which may affect the work.

short-term vegetative cover is needed.

represent bid quantities. These quantities do not distinguish

between topsoli, structural fill or embonkment material, nor do

unsultable material. The contractor shall familiarize himself

JEMPORARY SEEDING NOTES

Seedbed Preparation: Loosen upper three inches of soil by raking. discing or other acceptable means before seeding, if not previously Soil Amendments: Apply 600 lbs. per gare 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.).

Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushels per acre of annual rye (3.2 lbs

per 1000 sq.ft.). For the period May 1 thru August 14, seed with 3

bs. per ocre of weeping lovegross (0.07 lbs. per 1000 sq.ft.). For

the period November 16 thru February 28, protect site by applying 2

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL

PERMANENT SEEDING NOTES

EROSION AND SEDIMENT CONTROL for rate and methods not covered.

Apply to graded or cleared areas likely to be redisturbed where a

tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod. Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 eq.ft.) of unrotted small grain strow immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal.

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed. Seedbed Preparation: Loosen upper three inches of soil by raking. discing or other acceptable means before secding, if not previous

all Amendments: In they of sall test recommendations, use one of

1) Preferred - Apply 2 tons per ocre dolomitic limestone (92 lbs.

per 1000 sq.ft.) and 600 lbs. per acre 10-10-10 fertilizer (14

lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs. per acre 30-0-0 ureoform fertilizer (9 lbs. per 1000 sq.ft.) 2) Acceptable — Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs. per 1000 sq.ft.) before seeding. Horrow or disc into

of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre 0.05 lbs. per 1000 sq.ft.) of weeping lovegross. During the period October 16 thru February 28, protect site by one of the following

1) 2 tons per acre of well-anchored mulch straw and seed as soon

Seeding: For the period March 1 thru April 30 and from August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs. per 1000 sq.ft.)

3) Seed with 60 lbs. per acre Kentucky 31 Tali Fescue and mulch with 2 tons per acre well anchored straw. Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain strow immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on

lot areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal.

per 1000 sq.ft.) for anchoring. Maintenance : inspect all seeded areas and make needed repairs.

as possible in the spring.

SECTION I AREA TAX MAP 29 PARCEL 365 CARE OF WATER DURING CONSTRUCTION All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, leves. cofferdoms, drolnage channels, and stream diversions necessary to protect the

work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Streom diversions shall be maintained until the full flow can be passed through the permonent works. The removal of water from the required excovation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom of required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required

excavations, the water level of the locations being refilled shall be maintained below the bottom of the excovation at such locations which may require draining

sightly condition. All exposer, surfaces of the embankment, spillway, spoil and

great to be accupied by the permanent works. The contractor shall gise furnish. install, operate, and maintain all necessary pumping and other equipment

mointaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the

required for removal of water from the various parts of the work and for

borrow areas, and barms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings. EROSION AND SEDIMENT CONTROL

Construction operations will be carried out in such a manner that erosion will be controlled and water and oir pollution minimized. State and local laws

concerning pollution abotement will be followed. Construction plans shall

detail erosion and sediment control measures to be employed during the

All borrow gracz sha'l be graded to provide proper drainage and left in a

the water to sumps from which the water shall be pumped.

JAYKANT D. PAREKH #19148

CONSERVATION DISTRICT.

BY THE DEVELOPER

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL

AS BUILT CERTIFICATE

DATE

DATE

10/4/93 DEVELOPER DATE

BY THE ENGINEER

CONSERVATION DISTRICT.

CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL

10 - 4.93

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

JULS. SOIL CONSERVATION SERVICE

AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION

providing support to the support of the support of

ZONING.

Gina Junnary

HOWARD COUNTY DEPARTMENT OF PLANNING AND

DEVELOPER

WOODLOT ENTERPRISES, INC.

5026 DORSEY HALL DRIVE

SUITE 204

c/o THOMAS SCRIVENER

APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS Mar Janum OKU193 amen of the 10/20/93 CHIEF BUREAU OF HIGHWAYS DATE

CHIEF, DIVISION OF LAND DEVELOPMENT

AND RESEARCH

Added Subnotes 4 Thru Co Under EARTH DIKE. CHANGED DATA 3/29/94 | 1 IN NOTES 1 12; Sediment Control notes. DATE NO. REVISION

OWNER / DEVELOPER

JOHN LEE CARROLL.

ATTORNEY IN FACT

515 MADISON AVENUE

32nd FLOOR

CHIEF, BUREAU OF ANSINEERING

NEW YORK, N.Y. 10022 COLUMBIA, MD. 21042 **PROJECT** WOODLO

5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND SEDIMENT CONTROL

NOTES AND DETAILS

Planners • Engineers • Surveyors

8818 Centre Park Drive • Suite 200 • Columbia, Md 21045

410-997-8900 FAX: 410-997-9282 20: 933M - 5P-93-13 10.4.93 DATE PROJECT NO: 83017

7. PAREKH # 19148

WP-93-66 PB:278 DESIGNED BY : JTD DRAWN BY: DBS

DATE: OCTOBER 4, 1993 SCALE: AS SHOWN

DRAWING NO. も OF 12



STABILIZATION

AS. BUILT 1-20-96 : 93-125

